

Please add new claims 12-17.

*sub B'*  
12. An isolated and purified polynucleotide comprising a polynucleotide sequence encoding the amino acid sequence shown in SEQ ID NO:2.

*sub B'*  
13. An isolated and purified polynucleotide comprising the sequence shown in SEQ ID NO:1.

*A 3*  
14. An isolated and purified polynucleotide fully complementary to the sequence of claim 13.

*sub B'*  
15. An expression vector comprising the isolated and purified polynucleotide of claim 12.

16. A host cell comprising the expression vector of claim 15.

*sub B'*  
17. A method for producing a polypeptide comprising the sequence shown in SEQ ID NO:2, said method comprising the steps of:  
(a) culturing the host cell of claim 16 under conditions suitable for expression of the polypeptide, and  
(b) recovering said polypeptide from the cell culture.

#### REMARKS

Claims 1-11 were originally filed in response to the restriction requirement, Applicants affirm the election of the claims of Group I (claims 1-3 and 7-9) with traverse. Applicants submit that the invention encompassed by the claims of Group I (drawn to polynucleotides and a

method of making a polypeptide using these polynucleotides, etc.) could be examined at the same time as inventions encompassed by the claims of Groups III and IV. For example, a search of the prior art to determine the novelty of the polynucleotides of the invention would provide information regarding the novelty of the encoded polypeptide as well as complementary or antisense polynucleotides.

Accordingly, because the searches required to identify prior art relevant to the claims of Groups I, III, and IV would substantially overlap, Applicants respectfully submit that examination of originally filed claims 1-3 and 6-10 would pose no undue burden. Thus, Applicants request reconsideration and withdrawal of the Restriction Requirement and examination of the claims in Groups I, III, and IV.

However, in the event that the Examiner determines that the Restriction Requirement should be maintained, Applicants have canceled claims 4-6, 10, and 11 without prejudice to renewal as being contained within the non-elected groups. Applicants reserve the right to prosecute the non-elected claims in subsequent divisional applications.

Justification for the amendments is as follows. The specification was amended in accordance with the Examiner's statement in the Office Action dated January 30, 1997, that Applicants provide a Substitute Sequence Listing including the sequences disclosed at page 3, line 33, of the specification, and in Figures 2A, 2B, 2C, and 2D. Accordingly, in the specification as amended above, the sequences XLR and XLF at page 3, line 33, are identified as SEQ ID NO:3 and SEQ ID NO:4, respectively. The sequence "CFOMC5AM" in Figure 2 is now identified at page 4, line 1, of the specification, as SEQ ID NO:5. These SEQ IDs are included in the Substitute Sequence Listing filed with this Amendment. As the sequences now identified as SEQ ID NOs:3-5 were disclosed in the application as filed (XLR and XLF at page 3, line 33, of the specification, and CFOMC5AM in Figure 2), no new matter is added by these amendments.

Pages 28-31 of the specification are replaced above with substitute sheets 28-31A, containing the Substitute Sequence Listing reflecting the amendments described above. The

amendments at page 3, line 20, are supported at least at page 4, lines 7-9, of the specification as filed, and the first amendment at page 4, line 1, is supported at least in Figures 2A, 2B, 2C, and 2D as filed. The remaining amendments to the specification were made for consistency with the amendments above or to correct typographical errors.

In the claims, claims 1-3 and 7-9 are canceled and replaced by now pending claims 12-17. Claims 12-17 relate to polynucleotides, expression vectors and host cells comprising the polynucleotides, and a method of using the expression vectors and host cells to produce polypeptides. Support for new claim 12 can be found throughout the specification as filed; for example, at page 3, lines 19-20, page 6, lines 8-10, and page 7, lines 2-9. Claim 13 is supported in the specification at least at page 4, lines 20-26, and page 5, line 30, to page 6, line 4. Support for claim 14 can be found at page 3, line 25, page 6, lines 25-27, and at page 17, lines 3-16. Support for claims 15, 16, and 17 can be found in the specification at page 3, lines 25-27, in Example VII, and in claims 7-9 as originally filed.

None of the amendments to the specification or to the claims contain any new matter.

#### I. Substitute Sequence Listing

In the Office Action, the Examiner states that the above-identified application fails to comply with the requirements of 37 C.F.R. §§ 1.821-1.825. (Page 4.) Specifically, the Examiner finds that “no sequence listing has been provided which includes the nucleotide sequences presented in line 33 on page 3 of the instant specification and both of the amino acid sequences presented in Figures 2A to 2D therein.” (*Id.*) The Examiner requested that Applicants provide a Substitute Sequence Listing correcting these deficiencies.

Accordingly, the specification as amended above at page 3 identifies sequences XLR and XLF as SEQ ID NO:3 and SEQ ID NO:4, respectively. The description of Figure 2 in the Brief Description of the Drawings is amended at page 4, line 1, above to reflect that the amino acid sequence “CFOMC5AM” is now identified as SEQ ID NO:5. The other amino acid sequence

displayed in Figures 2A, 2B, 2C, and 2D is CALR, the new amino acid sequence of the present invention, identified in the present application as SEQ ID NO:2. (See, for example, the specification at page 4, lines 7-8.) Applicants note that SEQ ID NO: 2 was included in the Sequence Listing as originally filed.

In addition, accompanying this Amendment is a Substitute Sequence Listing which contains SEQ ID NO:3, SEQ ID NO:4, and SEQ ID NO:5, in addition to SEQ ID NO:1 and SEQ ID NO:2. Also accompanying this Amendment are a "Substitute Submission Under 37 C.F.R. §§ 1.821-1.825 Sequence Listing" and an attached diskette containing a substitute copy of the computer-readable form of the Substitute Sequence Listing. Therefore, Applicants submit that the requirements of the sequence rules, 37 C.F.R. §§ 1.821-1.825, are now fully met.

## II. Rejection of Claims 1, 2, and 7- 9 Under 35 U.S.C. § 112, first paragraph

The Examiner rejected claims 1, 2, and 7-9 under 35 U.S.C. § 112, first paragraph. This rejection is respectfully traversed. Claims 1, 2, and 7-9 are canceled above, and the rejection is moot as to these claims.

Applicants wish to note that pending new claims 12-17 are believed to be free of any enablement rejection. At pages 8-9 of the Office Action, the Examiner states:

Applicant is advised that claims directed to an isolated and purified polynucleotide encoding the amino acid sequence shown in SEQ ID NO:2, an isolated and purified polynucleotide comprising the nucleotide sequence shown in SEQ ID NO:1, a vector comprising one of those polynucleotides, a host cell comprising that vector, and a method of producing a protein comprising the amino acid sequence shown in SEQ ID NO:2, said method comprising the steps of culturing a host cell containing a heterologous nucleic acid encoding said receptor under conditions suitable for expression of said protein by said cell, and recovering said protein would be free of the art and allowable.

Accordingly, new claims 12-17 are directed as advised by the Examiner. Independent claim 12 recites : "[a]n isolated and purified polynucleotide comprising a polynucleotide sequence

encoding the amino acid sequence shown in SEQ ID NO:2." Independent claim 13 recites: "An isolated and purified polynucleotide comprising the sequence shown in SEQ ID NO:1." Claim 14 depends from claim 13 and is directed towards polynucleotides "fully complementary" to the polynucleotides of claim 13. Claims 15 and 16 depend directly or indirectly from claim 13, and recite expression vectors and host cells comprising these polynucleotides. Claim 17 provides a method of making a polypeptide using the host cell of claim 16. Therefore, pending claims 12-17 conform to the Examiner's suggestions, and Applicants submit that they are allowable.

As claims 1, 2, and 7-9 are canceled, and claims 12-17 are free of any rejection under this section, the withdrawal of the rejection is respectfully requested.

III. Rejections Under 35 U.S.C. § 112, second and fourth paragraphs

Claims 1-3 and 7-9 were rejected under 35 U.S.C. § 112, second paragraph, as being indefinite, and claim 9 was rejected under 35 U.S.C. § 112, fourth paragraph, as being of improper independent form. Claims 1-3 and 7-9 are canceled in this Amendment, and the rejections are not relevant to the pending claims. Therefore, withdrawal of these rejections is respectfully requested.

**CONCLUSION**

The Examiner's indication that claims such as the claims now pending would be allowable is greatly appreciated. In light of the above amendments and remarks, Applicants submit that the present application is fully in condition for allowance, and request that the Examiner withdraw the outstanding rejections. Early notice to that effect is earnestly solicited.

If the Examiner contemplates other action, or if a telephone conference would expedite allowance of the claims, Applicants invite the Examiner to contact Applicants' Attorney at (415) 845-4170.

Respectfully submitted,

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